| 0 | | | 2003/09/13 | USPAT; US-PGPUB; EPO; JPO; DERWENT | glucagon adj like adj peptide | 821 | L11 | BRS | 11 |
|-----|-------------------------|--------------|---------------------|--|---|----------|-----|------|----|
| 0 | | | 2003/09/13 14:42 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2 same 9 | 1 | L10 | BRS | 10 |
| 0 | | | 2003/09/13 14:42 | USPAT; US-PGPUB; EPO; JPO; DERWENT | glucagon | 5540 | L9 | BRS | 9 |
| 0 | | | 2003/09/13 14:42 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 1 near stabiliz\$3 | 17 | L8 | BRS | ∞ |
| 0 | | | 2003/09/13 14:22 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 5 same (composition or formulation) same phosphate | 126 | L7 | BRS | 7 |
| 0 | | | 2003/09/13 14:21 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 5 same (composition or formulation) | 157 | 97 | BRS | 6 |
| 0 | | | 2003/09/13 14:21 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2 same (polypeptide or peptide or hormone) | 1062 | L5 | BRS | 5 |
| 0 | | | 2003/09/13 14:19 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2 same 3 | — | Ľ4 | BRŚ | 4 |
| 0 | | | 2003/09/13 15:01 | USPAT; US-PGPUB; EPO; JPO; DERWENT | (glucagon adj like adj peptide adj "2") or glp-2 | 182 | L3 | BRS | 3 |
| 0 | | | 2003/09/13 14:22 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 1 same stabiliz\$3 | 1533 | 1.2 | BRS | 2 |
| 0 | | | 2003/09/13 14:17 | USPAT; US-PGPUB; EPO; JPO; DERWENT | histidine | 36262 | Ľ1 | BRS | 1 |
| Err | Error Definit ion | Comm ents | Time Stamp | DBs | Search Text | Hits | L# | Туре | |

| Time 2003/(15:02 15:03/(15:04 15:03/(15:37 |
|---|
| Time Stamp 2003/09/13 15:02 2003/09/13 2003/09/13 2003/09/13 15:04 2003/09/13 15:37 |

| ,,- | Туре | L# Hits | Hits | Search Text | DBs | Time Stamp | Comn ents | Error Err Definit ors | Err |
|-----|--------------|---------|---------|--|---|---------------------|--------------|--------------------------|-----|
| 22 | 22 BRS L25 0 | L25 | | ((glucagon adj like adj peptide adj "2") USPAT; or glp-2) same lyopholiz\$ JPO; DERWENT 16:36 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/09/13 16:36 | | |) |
| 23 | 23 BRS L26 | L26 | | isaacs adj indu.in. | USPAT; US-PGPUB; EPO; 2003/0 JPO; DERWENT 16:36 | 2003/09/13 16:36 | | 0 | 0 |

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FILE 'MEDLINE' ENTERED AT 16:41:18 13 SEP 2003
FILE 'CAPLUS' ENTERED AT 16:41:18 ON 13 SEP 2003
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FILE 'EMBASE' ENTERED AT 16:41:18 ON 13 SEP 2003
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FILE 'SCISEARCH' ENTERED AT 16:41:18 ON 13 SEP 2003
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FILE 'AGRICOLA' ENTERED AT 16:41:18 ON 13 SEP 2003
=> s (glucagon like peptide 2) or glp-2
          1319 (GLUCAGON LIKE PEPTIDE 2) OR GLP-2
=> s phosphate buffer
         77082 PHOSPHATE BUFFER
=> s histidine
        162033 HISTIDINE
L3
=> s (bulking agent) or mannitol or sucrose
        376996 (BULKING AGENT) OR MANNITOL OR SUCROSE
=> d 15 1 ibib abs
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
                          2001:507555 CAPLUS
ACCESSION NUMBER:
                          135:97491
DOCUMENT NUMBER:
                          GLP-2 formulations
TITLE:
                          Isaacs, Indu J.
INVENTOR(S):
                          NPS Allelix Corp., Can.
PATENT ASSIGNEE(S):
SOURCE:
                          PCT Int. Appl., 33 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                      KIND DATE
                                             APPLICATION NO. DATE
     PATENT NO.
     wo 2001049314
                       Α2
                             20010712
                                             wo 2000-us35512 20001229
                             20020103
     wo 2001049314
                       Α3
             AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
     US 2001027180
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 2001027180 A1 20011004 US 2000-750022 20001229
                                                              EP 2000-988416
       EP 1246639
                                Α2
                                        20021009
                                                                                      20001229
                  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                  IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
19195 T2 20030617 JP 2001-5
       JP 2003519195
                                                              JP 2001-549681
                                                                                       20001229
                                                         GB 1999-30882 A 19991230
WO 2000-US35512 W 20001229
PRIORITY APPLN. INFO.:
      storage and/or exposure to elevated temps. The compns. comprise a ***GLP*** - ***2*** pep
                                         *GLP*** - ***2*** peptide or an analog thereof,
***buffer*** , L- ***histidine*** , and
            ***phosphate***
          ***mannitol***
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=> d his
       (FILE 'HOME' ENTERED AT 16:40:56 ON 13 SEP 2003)
      FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 16:41:18 ON 13 SEP 2003
              1319 S (GLUCAGON LIKE PEPTIDE 2) OR GLP-2
L1
             77082 S PHOSPHATE BUFFER
            162033 S HISTIDINE
L3
            376996 S (BULKING AGENT) OR MANNITOL OR SUCROSE
                  1 S L1 (P) L2 (P) L3 (P) L4
=> s 13 (a) stabiliz?
                36 L3 (A) STABILIZ?
=> s 16 (p) 11
                 0 L6 (P) L1
=> s 16 (p) (protein or polypeptide or peptide)
                 4 L6 (P) (PROTEIN OR POLYPEPTIDE OR PEPTIDE)
=> duplicate remove 18
DUPLICATE PREFERENCE IS 'CAPLUS, EMBASE'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L8
                  4 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)
=> d 19 1-4 ibib abs
      ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
                                 1993:142543 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                 118:142543
                                 Stabilization of microbial lipase with L-histidine
TITLE:
INVENTOR(S):
                                 Naka, Yasuhiro
                                 Amano Pharmaceutical Co., Ltd., Japan
PATENT ASSIGNEE(S):
                                 Jpn. Kokai Tokkyo Koho, 9 pp.
SOURCE:
                                 CODEN: JKXXAF
DOCUMENT TYPE:
                                 Patent
LANGUAGE:
                                 Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
       PATENT NO.
                             KIND
                                    DATE
                                                         APPLICATION NO.
                                                                               DATE
       JP 04370096
                              Α2
                                     19921222
                                                         JP 1991-170616
                                                                               19910614
      JP 3152958
                                     20010403
                              В2
                                                     JP 1991-170616
                                                                               19910614
PRIORITY APPLN. INFO.:
      Histidine (I) or proteins having N-terminal histidine such as bovine serum albumin are used to abolish the inhibition of microbial lipase by bile
      acid salts in duodenum. A compn. contg. I and microbial lipase is useful as a pancreatin substitute for treatment of digestion-assocd. disorders. In the presence/absence of I, bile acid salts 4mM inhibited the activity of lipase of Rhizopus delemar to degrade olive oil by 7% and 27, resp.
      ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
                                 1991:77233 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                 114:77233
TITLE:
                                 Studies of synthetic helical peptides using circular
                                 dichroism and nuclear magnetic resonance
                                Bradley, Erin K.; Thomason, John F.; Cohen, Fred E.; Kosen, Phyllis Anne; Kuntz, Irwin D. Dep. Pharm. Chem., Univ. California, San Francisco, CA, 94143, USA
AUTHOR(S):
CORPORATE SOURCE:
                                 Journal of Molecular Biology (1990), 215(4), 607-22
SOURCE:
                                 CODEN: JMOBAK; ISSN: 0022-2836
DOCUMENT TYPE:
                                 Journal
LANGUAGE:
                                 English
      A set of 17-residue synthetic peptides were designed to be monomeric helixes in aq. soln. CD expts. indicate the presence of helical structure in aq. soln. at low temp. and low pH. The 2-dimensional NMR results for one of the peptides show a segment of 10 residues which clearly meets all
      of the criteria for the existence of helical structure at both 5.degree.
                           The 1st 4 residues of the peptide are in a largely
      extended conformation. Calcns. suggest that residues 5 through 14 are
      significantly helical at 5.degree.. When the temp. is increased, CD
```

spectra indicate that the helical content decreases. At 15.degree. the 3JN.alpha. coupling consts. increase in the helical region, indicating an

increase in motion or conformational averaging in the helical segment. None of the peptides has pH tich. behavior consistent with sample bridge stabilization of helical conformation. These data lend themselves to interpretation with the helix dipole model and specific side-chain interactions. When the N and C termini charges are removed the helical content of the peptides increases. The amt. of helicity increases as the pH is lowered, due to the ionization of His16. Much of the helical stabilization appears to be due to a specific side-chain interaction between His16 and Tyr12.

L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS ON STN

ACCESSION NUMBER: 1986:502588 CAPLUS

KTND

DOCUMENT NUMBER: 105:102588

TITLE: Histidine-stabilized immunoglobulin Zolton, Raymond P.; Nasser, Jennifer A. PATENT ASSIGNEE(S): Ortho Diagnostic Systems, Inc., USA

SOURCE: U.S., 8 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PRIO

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|---|--|--|---|
| us 4597966 | Δ | 19860701 | US 1985-689882 | 19850109 |
| AU 8651892 AU 590737 | Ã1 | 19860717 | | 19860107 |
| AU 590737 | в2 | 19891116 | | |
| CA 1285225 | A1 | 19910625 | CA 1986-499148 | 19860107 |
| EP 187712 | A2 | 19860716 | EP 1986-300087 | 19860108 |
| | | | TT | |
| 7D 61218528 | A2 | , FK, GB, 10860020 | 11, L1, LU, NL, 5E | 10860100 |
| ORTTY APPING THEO | . : | 19000929 | us 1985-689882 | 19850109 |
| ***Histidine* | ** _ | ***stabili | zed*** therapeutic Id | prepns. and a |
| method for thei | r manuf | . are disc | losed. It is particula | arly well suited for |
| stabilization o | f human | IgG prepn | s. having a relatively | low ***protein*** |
| content. Prefei | rred sta | abilized h | uman .gammaglobulin p | orepns. comprise |
| 0 025-0 2M and | ness . | gammagro | pullin, nistialne at a (| onen. or about |
| nrenns is at l | east 6 | n hut not | more than 7 0 A nH va | alue of about 6.4 is |
| most preferred. | Cond. | of the pr | epns. is about 2-4 mill | lisiemens at |
| 5.degree., prefe | erably a | about 2.5- | 3.5 millisiemens at 5.d | degree., and most |
| preferably about | t 2.7 m | illisiemen | s at 5.degree | - |
| EP 187712 R: AT, BE, JP 61218528 ORITY APPLN. INFO ***Histidine** method for their stabilization of content. Preferabout 5 wt.% or 0.025-0.2M, and prepns. is at lemost preferred. | A3 CH, DE A2 :: ** - r manuf f human rred st less . option east 6. Cond. erably | 19880803 , FR, GB, 19860929 ***stabili . are disc IgG prepn abilized h gammaglo ally glyci O but not of the pr about 2.5- | IT, LI, LU, NL, SE JP 1986-1483 US 1985-689882 zed*** therapeutic Iglosed. It is particula s. having a relatively uman .gammaglobulin p bulin, histidine at a cone at 0.05-0.5 M. The more than 7.0. A pH va epns. is about 2-4 mill 3.5 millisiemens at 5.0 | 19860109 19850109 2 prepns. and a 2 rly well suited for low ***protein*** 2 repns. comprise 2 concn. of about 2 pH value of the 3 lue of about 6.4 is |

L9 ANSWER 4 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

ACCESSION NUMBER: 75068732 EMBASE DOCUMENT NUMBER: 1975068732

TITLE: Multiple aggregation states of phosphoribosyladenosine

triphosphate synthetase.

AUTHOR: Parsons S.M.; Koshland Jr D.E.

CORPORATE SOURCE: Dept. Biochem., Univ. California, Berkeley, Calif. 94720,

United States

SOURCE: Journal of Biological Chemistry, (1974) 249/13 (4119-4126).

CODEN: JBCHA3

DOCUMENT TYPE: Journal

FILE SEGMENT: 004 Microbiology

029 Clinical Biochemistry

LANGUAGE: English The association states of phosphoribosyladenosine triphosphate synthetase from Salmonella typhimurium were studied using ultracentrifugation, gel filtration, and fluorescence spectroscopic techniques. The enzyme exists predominantly as a hexamer at 25 and 37 degree. under mild solvent conditions. At 4-7.5.degree. it aggregates to species smaller and larger ***protein*** than a hexamer depending on concentration. High ionic strength cesium chloride at 25.degree. leads to a species larger than the hexamer. Lower ionic strength, pH 10, or aging dissociate the enzyme to a dimer. The combination of low ionic strength and pH 10 can dissociate the enzyme further to a monomer. Either of the substrates or ***stabilizes*** the hexamer form of the enzyme, but ***histidine*** ***stabilizes*** the hexamer form of the enzyme, but sodium ion is necessary for effective stabilization by histidine. Active enzyme was shown to be a hexamer under assay conditions, even when incubated under conditions leading to indefinite aggregation prior to ultracentrifugation in assay media.

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(FILE 'HOME' ENTERED AT 16:40. ON 13 SEP 2003)
     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     16:41:18 ON 13 SEP 2003
            1319 S (GLUCAGON LIKE PEPTIDE 2) OR GLP-2
L1
           77082 S PHOSPHATE BUFFER
L2
L3
          162033 S HISTIDINE
          376996 S (BULKING AGENT) OR MANNITOL OR SUCROSE
1 S L1 (P) L2 (P) L3 (P) L4
L4
L5
L6
               36 S L3 (A) STABILIZ?
                0 S L6 (P) L1
L7
                4 S L6 (P) (PROTEIN OR POLYPEPTIDE OR PEPTIDE)
L8
                4 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)
=> s l1 (p) lyophiliz?
               0 L1 (P) LYOPHILIZ?
=> s disease (p) 11
            132 DISEASE (P) L1
L11
=> s L11 (p) L2 (p) 13 (p) 14
L12 0 L11 (P) L2 (P) L3 (P) L4
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               4 ISAACS INDU/AU
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              0 L13 AND L1
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=> d his
      (FILE 'HOME' ENTERED AT 16:40:56 ON 13 SEP 2003)
     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 16:41:18 ON 13 SEP 2003
            1319 S (GLUCAGON LIKE PEPTIDE 2) OR GLP-2
L1
L2
           77082 S PHOSPHATE BUFFER
L3
          162033 S HISTIDINE
          376996 S (BULKING AGENT) OR MANNITOL OR SUCROSE
L4
                1 S L1 (P) L2 (P) L3 (P) L4
L5
               36 S L3 (A) STABILIZ?
L6
L7
                0 S L6 (P) L1
                4 S L6 (P) (PROTEIN OR POLYPEPTIDE OR PEPTIDE)
4 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)
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L9
                0 S L1 (P) LYOPHILIZ?
L10
              132 S DISEASE (P) L1
L11
                0 S L11 (P) L2 (P) L3 (P) L4
L12
                4 S ISAACS INDU/AU
L13
                0 S L13 AND .L1
L14
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COST IN U.S. DOLLARS
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FULL ESTIMATED COST
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                       SINCE FILE
                                                                         TOTAL
                                                             ENTRY
                                                                       SESSION
CA SUBSCRIBER PRICE
                                                             -2.60
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